

Title (en)  
Twin-clutch manual transmission

Title (de)  
Handgeschaltetes Doppelkupplungsgetriebe

Title (fr)  
Transmission à double embrayage à commande manuelle

Publication  
**EP 1580455 A3 20060809 (EN)**

Application  
**EP 05003464 A 20050217**

Priority  
JP 2004082295 A 20040322

Abstract (en)  
[origin: EP1580455A2] A twin-clutch manual transmission comprising: first and second input shafts (5,6) adapted to selectively receive an engine power output through respective clutches (C1,C2); a first gear range group including gear sets which are disposed between a rear end portion of the first input shaft (3), protruding from a rear end of the second input shaft (6) in an area remote from an engine, and a counter shaft (15) parallel to the first and second input shafts (5,6); a second gear range group including gear sets (62,64,66) disposed between the second input shaft (6) and the counter shaft (15); an output shaft (11) placed in a concentric and abutting relationship with a rear end of the first input shaft (5); and a reduction gear set (19,80) disposed between the output shaft (11) and the counter shaft (15) to drivably connect the counter shaft (15) to the output shaft (11).

IPC 8 full level  
**F16H 3/00** (2006.01); **F16H 3/091** (2006.01); **F16H 3/08** (2006.01); **F16H 63/02** (2006.01)

CPC (source: EP KR US)  
**F16H 3/006** (2013.01 - EP US); **G06K 19/04** (2013.01 - KR); **H04M 1/17** (2013.01 - KR); **F16H 3/0915** (2013.01 - EP US);  
**F16H 37/043** (2013.01 - EP US); **F16H 2200/0052** (2013.01 - EP US); **Y10T 74/19228** (2015.01 - EP US)

Citation (search report)  
• [PX] EP 1467128 A1 20041013 - NISSAN MOTOR [JP]  
• [X] US 6286381 B1 20010911 - REED JR RICHARD G [US], et al  
• [X] DE 3721214 A1 19890112 - BAYERISCHE MOTOREN WERKE AG [DE]  
• [X] EP 1004795 A1 20000531 - FORD GLOBAL TECH INC [US]  
• [X] PATENT ABSTRACTS OF JAPAN vol. 011, no. 135 (M - 585) 28 April 1987 (1987-04-28)  
• [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 11 3 January 2001 (2001-01-03)  
• [X] PATENT ABSTRACTS OF JAPAN vol. 015, no. 035 (M - 1074) 28 January 1991 (1991-01-28)

Cited by  
DE102012000654A1; DE102005042360A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1580455 A2 20050928; EP 1580455 A3 20060809**; CN 1673571 A 20050928; JP 2005265139 A 20050929; KR 20060044564 A 20060516;  
US 2005204839 A1 20050922

DOCDB simple family (application)  
**EP 05003464 A 20050217**; CN 200510054296 A 20050321; JP 2004082295 A 20040322; KR 20050023736 A 20050322;  
US 7475005 A 20050309